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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/851,451	05/08/2001	Jong-Kwang Kim	678-657 (P9453)	4167

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EXAMINER	
FLANDERS, ANDREW C	

ART UNIT	PAPER NUMBER
2644	

DATE MAILED: 03/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/851,451	KIM, JONG-KWANG	
	Examiner	Art Unit	
	Andrew C Flanders	2644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 December 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 May 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1 and 5 rejected under 35 U.S.C. 103(a) as being unpatentable over Tran (U.S. Patent 6,359,987) in view of Tan (U.S. Patent 6,449,371)

3. Regarding Claims 1 and 5, Tran discloses a computer system with an audio signal output channel circuitry providing separate first and second output channels for connection to respective speakers (col. 8 lines 7 – 9) (i.e. an ear jack for transferring the audio signal output to one of an earphone and an external speaker), impedance detection circuitry coupled to said audio signal output channel circuitry, said impedance detection circuitry operable to detect, when speakers are connected to said audio signal output channel circuitry, whether said speakers are passively driven speakers having a relatively low impedance level or self-driven speakers having a relatively high impedance level (col. 8 lines 21 – 29) (i.e. a controller for determining the type of audio output device connected to the ear jack depending on the sense signal), a system that selects the proper speaker amplification suitable for the attached speaker load based on the determined impedance level (i.e. generating a sense signal indicating whether a connected audio output device is the earphone or the external speaker and controlling an audio gain according to the determined result) (col. 7 lines 26 – 28). Therefore, Tran

anticipates all elements of claims 1 and 5 with the exception that Tran does not explicitly disclose the computer as an MP3 player. Tan discloses a computer sound card which is configured to receive two sound channels and mix the sound channel with the PC audio signals (i.e., WAV, MIDI, AIFF, AU, MP3, etc.) (col. 1 lines 24 – 27) (i.e. an mp3 player). It would have been obvious to one of ordinary skill in the art to use Tan's sound card in conjunction with Tran's computer system. One would have been motivated to do so to allow their current personal computer to play various sound files (i.e. an MP3 player). Furthermore neither Tran nor tan disclose generating the sense signal at the ear jack. However, It would have been obvious to one of ordinary skill in the art at the time of the invention to integrate the multimedia speaker diction circuit and audio connector (fig. 2 elements 64 and 66) since it has been held that making parts integral is obvious if the resulting element perform the same functions as before, see In re Larson 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965). Integrating these two elements would thus generate a sense signal at the ear jack.

4. Claims 2, 3, 4, 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tran (U.S. Patent 6,359,987) in view of Tan (U.S. Patent 6,449,371) and in further view of Davis (U.S. Patent 4,410,890).

5. Regarding Claim 2, in addition to the elements stated above regarding claim 1, Tran further discloses providing separate first and second output channels for connection to respective speakers (col. 8 lines 7 – 9) (i.e. wherein the ear jack has at least two nodes for sensing connection), use of unamplified external speakers as an audio output device (col. 4 lines 12-14) (or an external speaker). Therefore the

combination of Tran and Tan makes obvious all elements of claim 2 except an earphone. Davis discloses a 1,000 ohm earphone type speaker (col. 3 line 61 and col. 4 line 1) (a large impedance earphone) (i.e either an earphone). It would have been obvious to one of ordinary skill in the art to use Davis' earphone and Tran's unamplified external speakers in conjunction with Tran and tan's system combination in order to play various music files. It is well known that earphones are desirable to prevent the disturbance of others when listening to audio output. As such, it would have been obvious to use these two output devices in order to vary the amount of noise produced.

6. Regarding Claims 3 and 6, in addition to the elements stated above regarding claims 1 and 2, Tran further discloses to receive over the relatively high amplification first transmission paths, audio signals input to said first and second audio signal inputs when the detected impedance level corresponds to said passively driven speakers having said relatively low impedance level, and (b) to receive over the relatively low amplification second transmission paths, audio signals input to said first and second audio signal inputs when the detected impedance level corresponds to said self-driven speakers having said relatively high impedance level. (col. 8 lines 30 – 41). Tran further discloses high amplification for passive speakers and low amplification for high impedance loads (i.e. 1000 ohm earphone). Therefore when Tran's unamplified speaker is connected, the amplification will be increased. When Davis' high impedance earphones are connected, the amplification will be reduced. (i.e. the controller increased the audio gain when the external speaker is connected to the ear jack, and the

controller decreases the audio gain when the earphone is connected to the ear jack). Therefore the combination makes obvious all elements of claims 3 and 6.

7. Regarding Claim 4, in addition to the elements stated above regarding claims 1 and 2, it is inherent that Davis' earphone and Tran's unapmplified speaker contain connection devices for connection to an audio output. Without these connections, the devices would not perform their designated function, reproducing audio signals.

Response to Arguments

Applicant's arguments filed 13 December 2004 have been fully considered but they are not persuasive. Examiner has considered the arguments but considers them moot in light of the new rejection necessitated by the amended limitations.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C Flanders whose telephone number is (703) 305-0381. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (703) 305-4040. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SINH TRAN
SUPERVISORY PATENT EXAMINER

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